

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT:	Irving et al.	)	
		)	
SERIAL NO.:	10/600,302	)	Examiner: R. Rabago
		)	
FILED:	June 20, 2003	)	Art Unit: 1713
		)	
TITLED:	LOW SEDIMENT PROCESS FOR	)	
	THERMALLY REACTING HIGHLY	)	
	REACTIVE POLYMERS AND	)	
	ENOPHILES	)	

Atty. Docket No. 2003L003

Assistant Commissioner for Patents  
Washington, DC 20231

**DECLARATION UNDER 37 CFR SECTION 1.132**

I, Jacob I. Emert, Ph.D., hereby declare and say as follows:

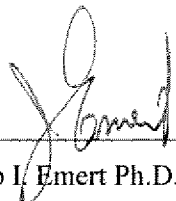
1. I was awarded a BS degree in Chemistry from Brooklyn College in 1970 and was awarded a Ph.D. in Organic Chemistry from Columbia University in 1974. From 1974 through 1981, I was employed as an Assistant Professor of Chemistry by Polytechnic Institute of New York. From 1981 to 1999, I was employed by Exxon Chemical Company, and from 1999 to the present, I have been employed by the successor in interest to the lubricating oil additives business of Exxon Chemical Company; Infineum USA L.P. where my present title is Chief Scientist. During my period of employment with Exxon Chemical Company and Infineum USA L.P., I have been engaged continuously in the research and development of lubricating oil additives and compositions. I am a named co-inventor of the subject matter of the above-identified patent application.

2. The above-reference application was rejected in view of the disclosure of EP 744393 (hereinafter "EP '393"). It was noted that EP '393 includes certain examples of an ene reaction of an olefin polymer and maleic anhydride in the presence of one or more "catalyst", including examples in which the catalyst or a co-catalyst is phenothiazine. The polyisobutene (PIB) used in these examples (which are comparative examples) is identified as "NAPVIS 120". The terminal vinylidene content of this polymer was not provided by the reference, however, it was assumed

that the polymer would have a terminal vinylidene content of greater than 50%. This declaration is being provided to demonstrate that NAPVIS 120 is, in actuality, a conventional PIB, as opposed to a highly reactive PIB, and has a terminal vinylidene content of far less than 30%.

3. A Carbon-13 NMR Spectrum for NAPVIS 120 is shown in the attached Attachment B. Carbon-13 NMR data derived from this spectrum are provided in Attachment A. As is clearly shown by the data of Attachment A, NAPVIS 120 has a terminal vinylidene content of only 4.8%.

It is declared by the undersigned that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: May 18, 2007 Signed:   
Jacob I. Emert Ph.D.

## Attachment A

Poly-isobutylene olefin analysis (Carbon-13 NMR Data) for

NAPVIS 120

### Raw Integral Values:

region	integral (mm)
1	0.0
2	4.9
3	4.0
4+5	5.3
6	1.0
7	4.0
8	6.4
9	8.2
10	24.2
11	17.3
14	8.6
12+13	7.9
8	2.2
7	5.9
10	22.0
9	13.5
11	11.7
2	3.6
1	0.0

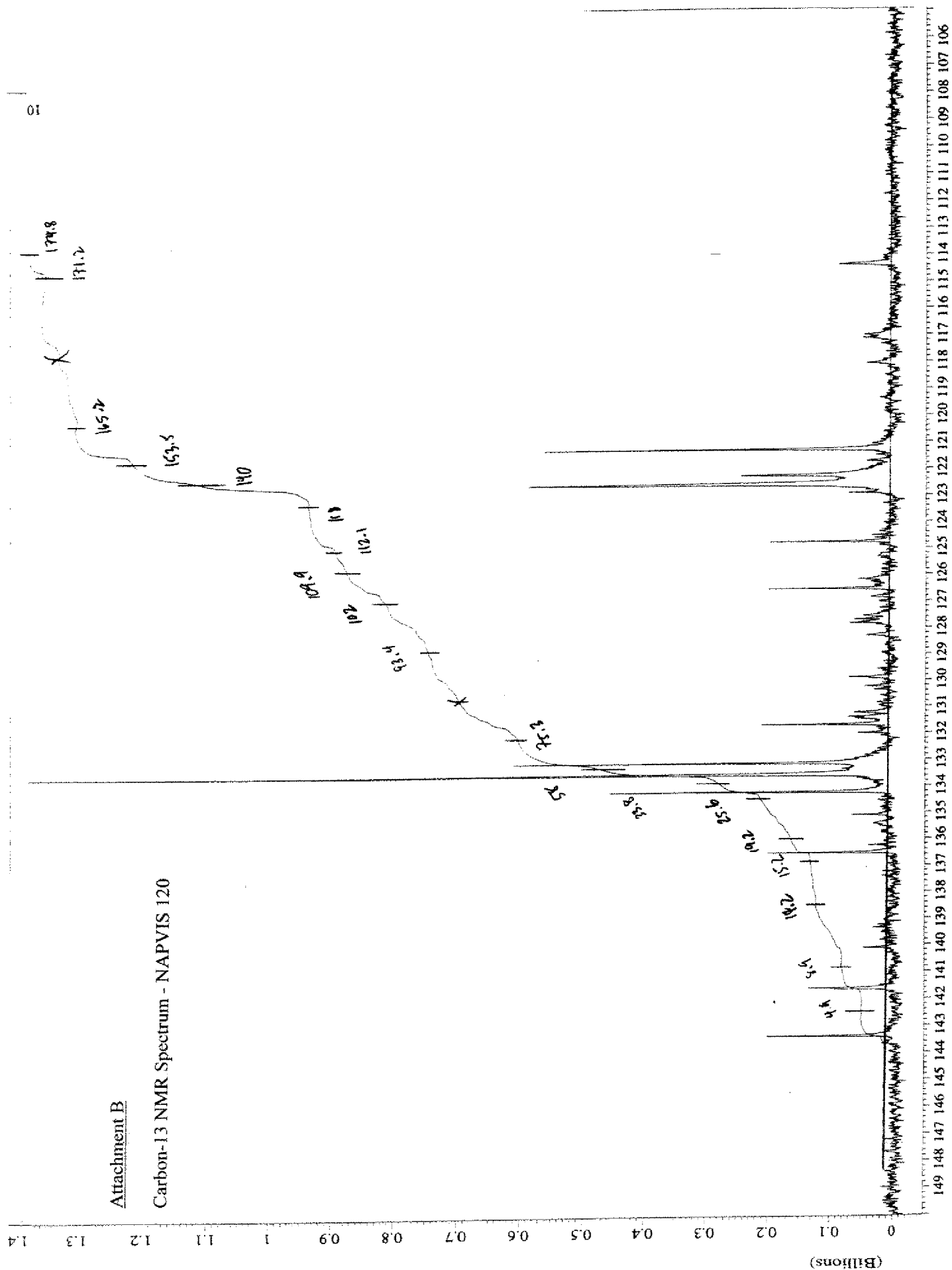
### Olefins type Distribution:

olefin	integral	percent
1	0.00	0.0
2	4.25	4.8
3	4.00	4.5
4+5	5.30	6.0
6	1.00	1.1
7	4.95	5.6
8	4.30	4.8
9	10.85	12.2
10	23.10	26.0
11	14.5	16.3
12+13	7.90	8.9
14	4.00	9.7
	88.75	

Olefin Substitution Distribution	Percent
Vinylidene	4.8
Trisubstituted	54.7
Tetrasubstituted	40.5

Attachment B

Carbon-13 NMR Spectrum - NAPVIS 120



X : parts per Million : 13C